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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/714,800

11/17/2003

Heinz Hofmann

15550Z

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23389

7590

01/03/2006

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EXAMINER

GELLNER, JEFFREY L

ART UNIT

PAPER NUMBER

3643

DATE MAILED: 01/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/714,800

Applicant(s)

HOFMANN ET AL.

Examiner

Jeffrey L. Gellner

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

Acknowledgement is made of Applicants' IDSs received 17 November 2003 and 12 December 2005.

#### ***Election/Restrictions***

Claims 7 and 8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 13 October 2005. Elections was to: HMX as the secondary explosive; method of claims 6 and 7; and, polyacrylic elastomer.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 is a combination of two sentences which is improper.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benziger (US 3,985,595) in view of Lee et al. (US 6,547,899 B2).

As to claims 1, 3, and 4, Benziger discloses a process for producing an insensitive explosive mixture comprising depositing TATB on a secondary explosive crystal, HMX (from col. 2 lines 18-32; col. 6 lines 19-25). Not disclosed is the TATB being sonochemically aminated. Lee et al., however, discloses the TATB being sonochemically aminated (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Benziger by using the sonochemically aminated TATB so as to have finer-grained TATB so as to increase shock insensitivity (see Lee et al. at abstract).

As to claim 2, Benziger as modified by Lee et al. further disclose the TATB at less than 15% by weight (see Benziger at col. 6, lines 19-25).

As to claim 5, Benziger as modified by Lee et al. further disclose the ammonium solution (abstract of Lee et al.).

As to claims 6 and 7, Benziger as modified by Lee et al. further disclose use of ultrasonic irradiation for amination of TATB with ammonia, and toluene (Lee et al. at col. 2 lines 10-30).

As to claim 10, the limitations of claim 1 are disclose as described above. Not disclosed is the binder added after the depositing step. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method of Benziger as modified by Lee et al. by adding the binder after deposition depending upon effectiveness of the mixing procedure.

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Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benziger (US 3,985,595) in view of Lee et al. (US 6,547,899 B2) in further view of Highsmith et al. (US 6,425,966 B1).

As to claim 11, the limitations of claim 1 are disclose as described above. Benziger further discloses a binder that is Kel-F (col. 2 lines 4-16). Not disclosed is the binder being a polyacrylic elastomer. Highsmith et al, however, discloses an explosive with TATB and HMX (see col. 5 lines 56-65) that uses either chlorotrifluoroethylene or polyacrylates as a binder (col. 5 lines 21-45). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method of Benziger as modified by Lee et al. substituting polyacrylate for the binder depending upon availability and cost of the binder material.


### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Gellner whose telephone number is 571.272.6887. The examiner can normally be reached on Monday-Friday, 8:30-4:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571.272.6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'JL Gellner', is positioned to the left of the printed name.

Jeffrey L. Gellner  
Primary Examiner  
Art Unit 3643